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The state of Amazon
Brazil

by

Lauro B. Bitancourt

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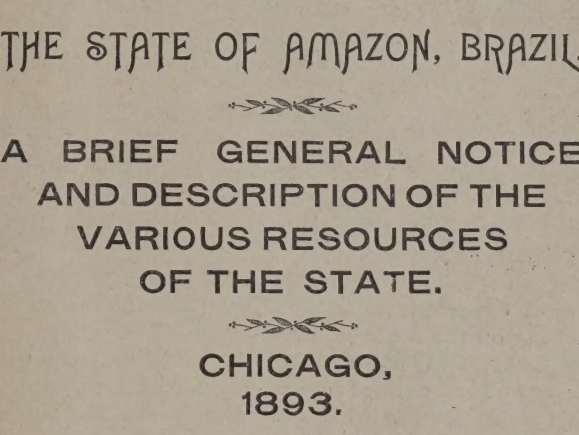
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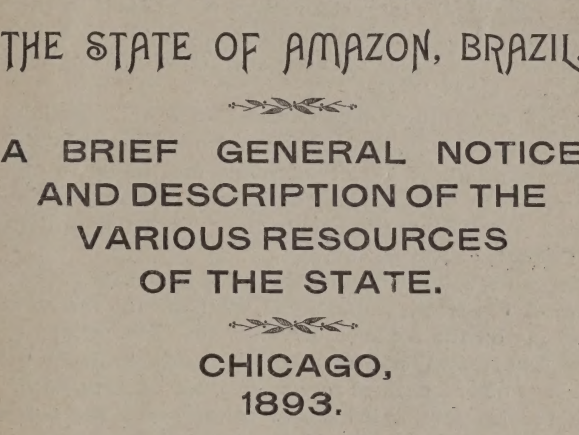
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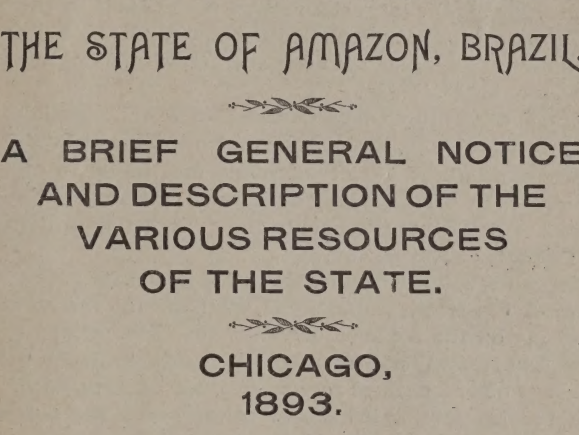
CHICAGO,
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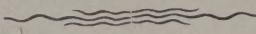


THE STATE OF AMAZON, BRAZIL.

A BRIEF GENERAL NOTICE
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OF THE STATE.

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INTRODUCTION.



THE AMAZON VALLEY, in which is the Brazilian State of the same name is the largest and most remarkable in the world. It is in itself alone larger than the united valleys of the Mississippi, Nile and Danube:—It occupies an area estimated at more than two millions of square miles.

Nature in this valley which extends from the Atlantic to the Andes displays an unrivalled opulence. Its *flora* is the richest in the world and presents an infinite variety of plants not found in other regions. A faint idea of its products may be formed from a sight of its woods, which the Amazon State presents in the "Forestry Building" at the World's Columbian Exposition.

Its *fauna* is not less admirable in the immense variety of its reptiles, birds, fish, insects, mammals etc. Wallace, the distinguished naturalist, writing on the Amazon, says: "For richness of Vegetable production and universal fertility of soil it is unequalled on the globe and offers to our notice a natural region capable of supporting a greater population and supplying it more completely with the necessities and luxuries of life than any other of equal extent."

The hydrographical system of the Amazon and its affluents is the most extended in the world. It is calculated that 25,000 miles of its waters are navigable for steamers. The volume of water in the Amazon, the "sea-river" of Agassiz, is so great that its current is perceptible in the Ocean, more than 200 miles from its mouth, and the capacity of its channel is such that the influence of Ocean tides is felt 400 miles from its mouth. Steamers like the *Campania* can easily navigate in any season to Tabatinga 2000 miles distant from the sea.

In the desire of calling general attention to this marvelous region, vast field open to human activity where subsistence is so easy and the means of obtaining wealth numerous we publish this slight notice about the Amazon State.

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GENERAL DESCRIPTION.

The Amazon State is a part of the Republic of the United States of Brazil.

It is situated between 5 degrees 10 minutes N. Latitude and 10 degrees, 3 minutes S. Latitude, and between 13 degrees, 40 minutes and 32 degrees W. Longitude. Its surface comprises almost two millions of square kilometers. It is bounded on the North by English Guiana and the republics of Venezuela and Columbia; on the South by the Brazilian State of Matto Grosso and the republic of Bolivia, on the East by the state of PARA; and West by Peru and Ecuador.

RIVERS—It is washed by the Amazon river from Tabatinga to Parintins, and its branches, which are, mentioning only the principal: the Javary, Jutahy, Jurua, Teffe, Coary, Purus, Madeira, Ramos on the right side; the Japura, Ica, Negro, Branco, Jahu on the left.

ISLANDS—In all the rivers of the Amazon region are encountered Islands, among the most notable of which are Aramaca, Tupinambarana, Veados, Careiro, etc.

BAYS—Notable are Boiassu in the Negro river, Teffe and Coary.

LAKES—There are indeed an infinity of which we will merely mention: Amacu, Nhamunda, Saraca, Amatary, Curiueu, Cumapy, Amaya, Codajaz Tracaja, Elrei, Antaz, Maratary, Murucutaba, Uayapua.

CLIMATE—It is noted for its uniformity; the mean yearly temperature being 78 degrees, the thermometer never rising in the shade above 95 degrees nor descending below 60 degrees. Notwithstanding its humidity it is very healthy; as is proven from the testimony of all travellers in this region. Wallace in his work "Travels on the Amazon and River Negro" says: "The climate of the Amazon valley seems remarkable for uniformity of temperature and for a regular supply of moisture. There are in most parts of it six months wet and six months dry season, neither of which are so severe as in other tropical climates. A more equitable climate probably does not exist on the Earth." Here are never noted sudden changes of weather, nor cyclones, nor torna-

does. And notwithstanding the marshy land along the banks of some of the rivers, the rate of mortality is less than twenty-four (24) per thousand annually.

ANIMALS—In the Animal Kingdom is found in the Amazonian forests and waters of its rivers a multitude of animals of all species, of which we will merely make mention: In the order of Quadrumans, Monkeys of various species, Guaribas, Cuatas, Bairrgudos, Saguis; Carniverous animals are the Tiger, Panther, Maracaja; rodents are: the Paca, Cotia, Pacyderms, Anta, Caitetu. **RUMINANTS**—Deer of various Species, an infinity of others, including Tatus, Coatys, Tamanduas and Sloths. **CETACEOUS** like the Cow-fish, Boto, Dog-fish. **BIRDS**: Urubus, Gaviao, Tocans, Parrots, Periquitos, Araras, Maracanas, Munms, Jacamies, Nambus, Ciganas, Unicorns, Doves, Jacanas, Jaburu, Guara, Marrecas, Gaviots, Macarico, Colibri, Japim, Rouxiuol, Fly-catcher.

REPTILES—Turtles, Tracaja, Jaboty, Ayassa, Jacares, Camaleons, Lizard, Serpents, like the Jararaca, Sucuriju, Giboia.

FISH—Almost numberless the different species of fish found in the Amazon river. Agassiz stated that he found three times as many species in the Amazon river as in those of all Europe together. To not fatigue the reader we will quote merely the following: Pirarucu, (one of the largest fish) whose fisheries constitute one of the industries of the country. In the commercial section later on will be found the value of its production during the last year. Acaras, Acari, Arraia, Agulha, Bacu, Cascudo, Espadarto, Jaraqui, Mandube, Mandii, Mandube, Mapara, Jundia, Piau, Pirahyba, Pescada, Pirarara, Pirapitinga, Piranha, Poraque, Pacamao, Pacu, Surubim, Sardinha, Tambaqui, Tucunare, Taiuha, Trahira, etc., etc.

It would be wearisome to enumerate the multitude of brilliant coloured Insects, Coleoptera, etc.

The extraordinary *flora* of the Amazon has caused the delight and surprise of scientists and explorers. As it will be impossible in this brief notice to enumerate all the products of the Amazonian *flora* we will limit ourselves to the following: Among the woods most used in civil and naval constructions are: Acapu, Cicupira, Itauba, Piquia, Massaranduba, Paoferro, Cedro, Louros, Pao-rainha. For joinery: Genipapo, Ingarana, Jacaranda, Muiracutiara, Murapinima, Muirapiranga, Pao-Rosa, Pao-Mulato, Pao-Precioso, Pao-Roxo, Pao-Setim, Cumaru.

ALIMENTARY—Coffee-tree, Cocoa-tree, Rice, Corn, Bread-Fruit, Yams, Mandiocas, Sweet potatoes, Abobras. Among the eatable fruits Pine-Apples, Aligator Pear, Abio, Abrico, Araca, Assahy, Ata, Bacaba, Bacury, Beriba, Burity, Caju, Brazil-Nut, Cidra, Coco, Coubio, Copuassu, Figs, Guava, Inga, Jaca, Jambo, Orange, Lemou, Mamao, Mango, Mangaba, Maracuja, Mari-Mari, Musk-Melon, Water-Melon, Mur-

uchi, Payura, Patana, Piquia, Pitanga, Pupuuha, Pomegranate, Sap-
uti, Sorva, Tamarind, Tapereba, Targerina, Tucuman, Umari, etc.

TEXTILE FIBRES—Are numerous, among them we will quote:
Tucuman, Piassaba, Mirity, Turury, Imbira, Curaua, etc.

DYEING STUFFS—Urucu, Sicanta, Barba-Timao, Pao Campeche,
Massaranduba, Brazil-wood, etc.

OLEAGINOUS PLANTS—Are Tucum, Caiaue, Bacaba, Jauary,
Assai, Mirity, Umiry, Andiroba, Cacao.

MEDICINAL PLANTS — Ipecacuanha, Sarsaparilla, Mamona,
Sassafras, Abutua, Copahiba, Camary, Murure, Tobacco, Tamaquare,
Parica, etc. No other place of the globe is so rich in Medicinal plants,
as is that of the Amazon. Among gums and resins are the following
which are produced by the Cajueiro, Mangueiro, Amapa, Sucuuba.
Wax, Jatoba, Sorveira, Breu, etc. Later on we will treat of the rubber
tree (*Siphonia Elastica*) which occupies the first place in Amazonian
flora being the object of its principal industry.

MINERAL KINGDOM—We may say that the products of the veg-
etable kingdom are so important that those of the mineral, that is those
hidden under the soil have so far received but little attention. Among
those best known are gold, rock crystals, jade, granite, gres of differ-
ent specimens, lime-stone, stone-coal, argiles, pumice-stone, etc.

HISTORICAL SKETCH.

The first navigator of the Amazon was Vincente Janez Pinson, who first saw its waters in 1499. It was first explored in 1540 by Francisco Orellana, who ascended the river and gave to it the name of Amazon, on account of a tribe of female warriors, whom he is supposed to have found near the Nhamunda. The present Amazonian state became a part of the Portuguese dominion in Brazil under the denomination of the capitaney of the river Negro. In 1822 it became a simple district of Para, being in 1850 elevated to the rank of a Province and its installation effected, first of January 1852. On the tenth of July 1884 the abolition of slavery in this Province was declared. On November 21, 1889, after the revolution, carried into execution the 15th of the same month in Rio de Janeiro, it was proclaimed and recognized as the self governing state of Amazon.

The State is administered by a Governor elected for four years, and who resides in Manaos, the capital of the state. The state is divided into municipalities, administrated by intendants elected by the people.

The municipalities are: Manaos, Maues, Bareirinha, Parintins, Urucara, Silves, Itacotiara, St. Paulo de Olivenca, Fonte Boa, Teffe, Coary, Codajaz, Manicore, Borba, Humayta, Moura, Barcellos, Rio Branco, St. Gabriel, Labria, Antimary, Canutama and Jurua.

Judicial Power is vested: First, in the Superior Tribunal of Justice, its seat in the capital, and jurisdiction throughout the State. Second, Judicial judges in various districts, to the number of twelve. Third, Municipal Judges. Fourth, A Popular Tribunal, instituted in each boundary in which are divisions of the districts. There are twenty divisions in the state.

The Amazon state is represented in Federal Congress by four deputies elected for three years, and three senators lasting from three, six to nine years. The state Congress is composed of twenty-four members elected for the space of four years. This Congress meets annually for the space of three months to legislate over special business of state. Laws are sanctioned by the Governor of the State who orders their publication and execution.

Public order is maintained by a Chief of Public Security, Perfects and Sub-Perfects. The Security Battalion is composed of 400 men.

RELIGION—Notwithstanding the liberty of religious worship, decreed on the 7th, of January 1890, the majority of the population are Catholics. Civil marriage is by the decree of January 24th, 1890, the only legal registry of births and of deaths is obligatory.

PUBLIC INSTRUCTION—Public instruction is given at the cost of the state. Instruction is free, and the primary public schools gratuitous. Public instruction is divided into four classes, viz:—1st. Primary teaching; 2nd. Normal; 3rd. Secondary; 4th. Professional and technical teaching. Primary teaching is given in 98 public schools distributed throughout the state, 22 being for the masculine sex, 21 for the feminine and 55 are mixed schools. Besides there are various public night schools and many select. Primary teaching is still administered in the Asylums "Benjamin Constant" and the "Educators." Primary teaching consists in: Reading, Writing, National Grammar, Arithmetic, Elements of Geometry, Geography, History of Brazil, Ideas of Science and Linear drawing. The school hours are from 7 in the morning until 12, from 7th of January until 20th of November. (2)

Normal instructions is given in the Higher Normal Institutes, and the programmes are the following:

- I. Portuguese Language.
- II. French Language.
- III. Universal Geography.
- IV. Arithmetic, Algebra, Geometry, Trigonometry.
- V. Higher Algebra, Integral Geometry and Sectional, Mechanics, Astronomy.
- VI. Universal History.
- VII. Experimental Physics, and Meteorology, Chemistry and Notions of Mineralogy Geology.
- VIII. Descriptive Geometry and Perspective.
- IX. Biology, Notions of Botany, and Zoology.
- X. Moral and Sociology.
- XI. Philosophy, Music.

Secondary teaching is given in special courses, and professional and technical in special offices and in the Amazonian Institute.

Population of the entire State is calculated from 250,000, to 300,000 inhabitants.

FINANCES.

The following table will show the rapid growth of the State Public Revenue since 1852:

Financial year, 1852,	-	-	-	-	Reis	19,000,465.
Financial year, 1857,	-	-	-	-	-	91,972,133.
Financial year, 1862,	-	-	-	-	-	93,347,803.
Financial year, 1867-68,	-	-	-	-	-	274,427,608.
Financial year, 1872-73,	-	-	-	-	-	578,603,307.
Financial year, 1877-78,	-	-	-	-	-	785,970,765.
Financial year, 1882-83,	-	-	-	-	-	2,502,424,774.
Financial year, 1886-87,	-	-	-	-	-	2,713,686,081.
Financial year, 1892-93,	-	-	-	-	-	6,000,000,000.

The last figures are only an estimate. Probably it will be greater, as the production of india-rubber and other articles advances, and the revenue depends on the exportation of these articles. Three years ago, the State had a public debt of over Reis 2,000,000,000. It is all paid, and the State Treasury in the month of March of the present year, showed a balance of about Reis 5,000,000,000 IN CASH.

In the above figures, we do not include the revenue of the Municipalities, or INTENDENCIAS. To give an idea of this, we will only mention that of Manaos:

Financial year, 1852,	-	-	-	-	Reis	1,083,127.
Financial year, 1857,	-	-	-	-	-	5,134,304.
Financial year, 1862,	-	-	-	-	-	8,349,426.
Financial year, 1867-68,	-	-	-	-	-	50,048,144.
Financial year, 1872-73,	-	-	-	-	-	81,806,419.
Financial year, 1877-78,	-	-	-	-	-	90,903,279.
Financial year, 1882-83,	-	-	-	-	-	124,535,829.
Financial year, 1886-87,	-	-	-	-	-	144,083,941.
Financial year, 1892-93,	-	-	-	-	-	550,000,000.

The Custom House duties show the following increase:

Financial year, 1877-78,	-	-	-	-	Reis	209,021,862.
Financial year, 1886-87,	-	-	-	-	-	1,092,357,544.
Financial year, 1892,	-	-	-	-	-	about 3,000,000,000.

Part of the Custom House revenue is expended in the State for the payment of the Federal Army and Navy officers, and expenses of a general character; but about two-thirds of the revenue is sent to Rio de Janeiro, to the Federal Treasury.

NOTE—One Mil Reis (1,000) is equal to \$00.54 at par.

TRADE AND COMMERCE.

The official value of the commerce of the Amazon shows the following development.

Year.	Importations.	Exportations.
1876-77.	Reis 1,830,207,093.	Reis 2,600,600,091.
1881-82.	" 3,878,997,251.	" 10,342,107,600.
1886-87.	" 6,369,137,538.	" 14,634,898,078.
1891-92.	" 16,000,000,000.	" 28,000,000,000.

The last figures need no comment. Amazon imports from Europe the United States, and from other Brazilian States, the necessary articles of life, being almost null the products of its manufactures.

The staple products of exportation are:

INDIA-RUBBER—This is the principal article of its extractive, and exporting industries.

Its production from 1858 to 1862, was 1,000,000 kilograms, or the annual mean of 200,000 kilograms. From 1867-1868, 3,366,000 or a mean of 673,200 annually. The production increased afterwards in the following proportions:

Year: 1877-77,	- - - - -	Kilog. 1,733,239.
1881-82,	- - - - -	3,802,848.
1886-87,	- - - - -	6,430,125.
1891.	- - - - -	10,002,027.

BRAZIL, NUTS.—The exportation of this product has had the following increase:

Year: 1876-77.	- - - - -	Hectolitres, 39,400.
1881-82,	- - - - -	Hectolitres, 150,000.
1886-87,	- - - - -	Hectolitres, 35,908.
1891.	- - - - -	Hectolitres, 98,213.

COCOA.—The following has been the increase of this branch of agriculture:

Year: 1876-77,	- - - - -	Kilograms, 9,970.
1881-82,	- - - - -	Kilograms, 50,000.
1886-87,	- - - - -	Kilograms, 131,603.
1891.	- - - - -	Kilograms, 1,601,486.

Other articles of exportation, natural or due to industries are; Salt Dried Fish, Cumaru, Vanilla, Girofle Cloves, Hides, Tobacco, Isinglass, Guarana, Copahiba Oil, Skins, Piassaba, a sort of black rush, Sarsaparilla, Urucu, Woods, Estopa, Oils, Puxury, Horns, Starch, etc. In former times, Cotton, Coffee, Indigo, and other products formed important articles of exportation, whose culture, however, was abandoned at the discovery of sources of greater wealth, which were besides, more easily acquired.

Cattle raising, and the cultivation of Mandioca Meal, also that of cereals and vegetables are insufficient for domestic consumption, and naturally take no part in exportation.

NAVIGATION.

The only means of transportation is made through steamers, which run actually about 10,787 miles on different rivers.

On the Amazon, from Para to Tabatinga.....	2,078.
On the Madeira river.....	1,204.
On the Negro River.....	627.
On the Purus River.....	2,104.
On the Purus Affluents.....	1,060.
On the Jurua River.....	2,964.
On the Javary River.....	750.

Other rivers as Rio Branco, Japura, Ica, Jutahy, Teffe, Coary, are navigated by small steamers, but have not yet regular lines.

The development that has taken place in the number and tonnage of the shipping at Manaos during the last years is immense. Let these figures speak for themselves:

Years.	No. of Steamers.			Total tonnage.
	In.	Out.	Total.	
1872-73	51	45	96	45,600
1881-82	186	138	324	125,900
1891	317	447	764	566,800

This shows a rise of about 350 per cent. in ten years.

The principal navigating company are: AMAZON STEAM NAVIGATION COMPANY, LIMITED.

This company is largely subventioned by the State, and possesses a line of 26 steamers and 6 more in construction.

They made the following trips during the year of 1892:

	In.	Out.	Total.
Para.....	96	95	191
Purus River.....	24	25	49
Madeira River.....	15	12	27
Jurua River.....	9	10	19
Negro River.....	13	13	26
Solomois River.....	18	18	36
Javary River, and others.....	7	6	13
	182	179	361

BRAZILIAN LLOYD. With a line of ten steamers, some very comfortable, being provided with the latest improvements. This company is subsidized to make four monthly voyages. between Manaos and Rio de Janeiro, calling on all the principal intermediate towns.

RED CROSS LINE OF STEAMERS. Runs a monthly trip between Manaos, and Liverpool, calling at Itacoatiara, Parintins, Para, Lisbon and Havre. Some of the steamers of this company, as the **OBI-DENSE**, (2,800 tons) are very luxurious, and provided with all modern improvements. The company was subsidized by the State, but is now independent, carrying about 1,500 tons of cargo on each voyage.

BOOTH STEAM SHIP CO., LIMITED. This company has a yearly subvention of \$48,000,000 to make a monthly voyage between Manaos, and New York. Besides other steamers which the company possesses, it employs in that line the following: Clement, Cyril, Ambrose, and Basil. During the year of 1892, these steamers brought from Manaos to the port of New York, India-rubber, and other articles valued at \$200,000 in each voyage, and carried from the U. States about 120,000 volumes of goods. From January to July of the present year, they carried from Manaos, goods valued at more than \$3,000,000, and from New York more than 3,000 tons of general cargo to Manaos. They make in this period of time, eleven voyages, instead of six. The steamer, which the last month of March brought from Manaos to New York, the author of these lines, a small boat of 1184 tons and 830 horse power, had in its hold, a cargo valued at Reis 2,000,000,000.

MANAOS NAVIGATION CO. This company runs its steamers to Purus, Jurua, and Solimoes, having at Manaos, its principal office. Other companies as Para, and Amazonas, and small steamers, belonging to the principal trade houses of Manaos, run in the rivers or smaller branches of the Amazon.

THE CITY OF MANAOS.

The capital of the State of Amazon situated on the left bank of the Negro River, six miles from its mouth, is destined, through its central position in the great Amazon Valley, to become the emporium of that region.

And towards this, contributes also the salubrity of its climate, and the vastness of its beautiful port, where protected and free from all danger, could anchor all the vessels of the entire world.

As Chicago, the Queen of the West, is the center whence diverges its immense lines of railways, so is Manaos the focus of innumerable water routes, which one day may teem with busy life.

Built on high, dry land, cut by IGARAPES (small rivers) which empty into the Negro, the city offers a beautiful view, especially when the river is at high tide.

The houses at Manaus are constructed either of brick or stone, covered with glazed tiles. The walls and floors are of beautiful native wood, of which also are constructed windows and doors. (In the Forestry Building are to be seen models of ceilings and floors of a private house.) Among the public buildings, which adorn the city are: The Governor's Palace, State Treasury, The Lyceum, The Federal Treasury, The Churches of Conception, Remedios, and St. Sebastian, The Military Hospital, Misericordia Hospital, Boys' Institute, B. Constant Institute, State Warehouse, Public Market, Artillery Barracks, etc.

In the outskirts of the city is worthy of notice, the Water Works with its fine Pumping Station, Masonry Dam, and Distributing Reservoir.

On the eve of execution and in project, are a large number of works such as a new Governor's Palace, a Theatre, Forum, Penitentiary, Bridges, Gardens, etc.

In Manaus, being the seat of the Government, are found the principal State and Federal Buildings; Treasury, Custom House, Receiving Office. Public Works, Public Instruction, Superior Tribunal of Justice, etc., etc.

In the beginning of the present year, was installed in Manaus, a Meteorological Observatory provided with the most complete set of improved apparatus from Paris, and London.

Manaus has a Public Library, Fire Brigade, various Charitable Institutions, an Orphan Asylum, a Mechanics Institute, several Hotels Telephone station, etc.

Commerce and trade advance with gigantic strides. Besides the Manaus Bank, founded by A. C. de Figueiredo, which operates in all branches of credit with a capital of Reis 1,000,000,000, there are important commercial houses transacting business with the United States and Europe, of which we will quote the firms of: J. H. Andresen, Prusse, Pussinelli & Co., Brochlehurst & Co., Braga, Ventilari & Co., B. Bockris & Co., Freitas, Sobrinho & Co., Bernaud & Co., F. Alvares & Costa, A. Fernandes & Co., Pedrosa, Motta & Antongini, Kahn & Polack, Blum Freres, etc, etc.

Public illumination is made by globe-gas, but shortly will be done by electric lights.

Besides other publications, Manaus has four daily newspapers published in Portuguese.

With a population of about 20,000 inhabitants, the city is very well supplied with excellent water, remarkable for its purity and softness, From the water-shed it runs through an aqueduct of brick masonry 30 " in diam., and 2,000 feet in length. Afterwards the water runs

through a channel 8' wide and 500' long, to a capturing tank founded on rock. From the tank the water is drawn out by pumps through a suction pipe 2,000' long, with a diam. of 12". The pumps force the water through two lines of cast iron pipes. 9" in diam. and 5,000' long each, to the distributing reservoir, situated at a height of 120 feet above the level of the pumps. From this Reservoir part towards the town the two main lines of cast iron pipes 9" in diam. After running parallels for about 3,000 feet, these lines diverge in order to make a contour of the city; reuniting after a per-course of about three miles in a single line, which ends into a small iron tank of about 45,000 gallons capacity. From the mains, part the secondary lines of pipes of 8' 6" and 4" in diam. The distributing pipes for dwellings are of tinned lead of 2" 1" $\frac{3}{4}$ " $\frac{1}{2}$ " in diam.

The principal Reservoir has a capacity of more than 1,000,000 gallons. It is constructed of stone masonry and is divided in two compartments of equal size. It is covered with brick vaults and its floor is made of concrete.

The pumps are two of double action, being 1' 4" in diam. and 2' course of stroke. They are moved by water-power given by two turbine wheels, which can work together or separately.

The actual supply is about 800,000 gallons daily, but it will shortly increase by the erection of new pumps.

The water has been supplied free, but on account of great waste and extravagance, water-meters will soon be placed in the private houses.

INDIA RUBBER.

India Rubber, also named CAOUTCHOUC, BORRACHA, and SERINGA, is a soft substance, flexible and elastic in ordinary temperature. Under 32° F. it loses its elasticity and becomes hard. It is unchangeable to air and impervious to water. It softens in hot water, but does not dissolve neither in this liquid nor in alcohol. Its dissolvers are purified petroleum, benzine, essence of turpentine, and principally bisulphured carbon.

In some parts of Africa, India and Central America, are found trees, belonging to various families, which give products similar to India Rubber, but the best quality is extracted from the *SIPHONIA ELASTICA*, *HEVEA BRASILIENSIS*, or *HEVEA GUYANENSIS*, that is found in the forests of Amazon.

Rubber of three qualities is produced in the foreign markets: FINE, ENTERFINE, and SERNAMBY.

The superiority of Amazon or Para Rubber is due to natural causes and also to its better preparation, of which we will give a brief description.

The Rubber gatherer or SERINGUEIRO, at 8 to 10 o'clock in the morning goes through the ESTRADA, a sinuous path across the forest, and by means of a little special hatchet makes small incisions in the bark of the trees, and under each cut he fastens a small tin or clay cup to receive the sap. In the afternoon he returns to collect the sap which he empties from the cups into a sort of bucket or gourd. Some prefer to begin the work in the evening, returning for the sap the next morning. The crop of the day, made by all the gatherers, is then put into a larger vessel, and the DEFUMATION or SMOKING begins, in order to coagulate the milk. Over a terrace, or in his hut, the workman prepares his FUMATORY, a kind of clay furnace or chimney, from the top of which escapes a dense smoke, produced by the ignition of the fruits of palm trees. The workman, sitting by his furnace, introduces a circular wooden mould, provided with a handle, into the vessel containing the sap. It adheres to the mould that, thus covered, is exposed to the action of the smoke. The mould is turned around in the smoke until the aqueous part of the milk evaporates. Over the mould a thin solid covering of rubber is thus formed. Again the same operation is made and elastic stractifications are thus superposed. When the workman finds that the layers are of sufficient thickness, with two lateral slashes, he takes the ball of rubber from the mould, and exposes it to the sun to finish the drying process. The FINE Para rubber is thus made. The SERNAMBY proceeds from the residues of the coagulated sap that escapes from the cups and flows along the tree or falls on the ground.

Besides the process above described, other have been invented as those of Strauss, Bentes, Ray and others.

In the Leather and Shoes Building can be seen, among the products exhibited by the State of Amazon, some samples of rubber prepared by a new process.

The use of rubber was at first elemental, but owing to the improvements introduced in its manufactures by MacIntosh, Hancock, Broding, Lundersdoff, Goodyear, Gerard, Parkes, and other, it is to-day generally employed and indispensable not only for the preparation of clothing, shoes, furniture, machinery etc., but for delicate apparatus of surgery, chemistry, etc.

In the United States, we add with pleasure, nothing in the perfection of rubber manufactures is to be desired.

To give an idea of the magnitude of rubber industry, it is sufficient to tell that in the United States alone, about 200,000 pairs of boots and shoes are manufactured daily.

THE STATE OF AMAZON IN THE EXPOSITION OF CHICAGO.

In satisfaction of the invitation made by the Central Brazilian Commission of the Universal Columbian Exposition, the present Governor of the Amazon State, Dr. Edward G. Ribeiro, nominated the following State Commission:

LAURO B. BITANCOURT, President.

A DO FIGUEIREDO, Vice-President.

J. N. DE NASCIMENTO, Secretary.

J. C. DE MESQUITA, Treasurer.

COUNT STRADELLI, CAPT. J. A. PINTO RIBEIRO, F. H. ALVARES, A. LUCIANI, A. GROSSI. B. DE-GIAO, and C. M. DA SILVA, Commissioners.

At the Commissioners disposal was placed the sum of Reis 100,000,-000 (\$54,900.00 exchange at par) voted by the State Congress for expenses. The Commission inaugurated their work in June, 1892. Agents were sent to different rivers for the purpose of procuring natural products, and two photographers were commissioned to obtain views of Manaos, and of the principal interior scenes. Neither expense nor labor has been spared; but want of time and the difficulties attendant upon the immense length of transportation, have made it impossible for the State to present all its resources. Be it as it may, we still without fear, respectfully call the attention of the reader to the articles exhibited in our departments in the Forestry, Leather and Shoe, Agricultural, Mining, Manufactures, Fisheries and Anthropological Buildings.

In the Forestry Building can be seen 441 specimens of beautiful woods, proper for all kinds of construction, joinery, dyeing, mosaical work, etc. The arch in the entrance doorway of the Brazilian section, in this department, is made of cables of Piassaba, (ATTLEA FUNIFERA) a most rigid fibre, from which are fabricated brushes, and brooms, of long duration.

This arch is adorned with ESTOPA (oakum) products of the FIBER of various trees most proper for calking purposes.

We must note in this section a large number of textile fibres,—the tucum, mirity, embira, curaua, cipos, which are used for manufacturing cords, fishing lines, hats, baskets, etc, etc.

We will still notice some medicinal plants exhibited, such as Sarsaparilla, Ipecacuanha, Abutua, Apihy, Murure, Parica, Guarana, Tamacoari, and Cumaru Oils.

In the Agricultural Department are to be seen specimens of Cotton, Tobacco, Coffee, Cocoa, Tapioca, Mandioca, Brazil Nuts, etc.

In the Leather and Shoe Department, are wild animals skins. and

some specimens of the principal industrial products of the Amazon State—India-Rubber.

In the Liberal Arts and Manufactures sections are noted medicinal products from the Pharmacy BORBA of Manaus:—Tacum and Curaua Hammocks, decorated with Feathers, Handsome Mosaics in woods of the country, etc.

In the Anthropological Section are Indian manufactures and a large collection of curious ethnological objects.

In this section are to be seen some paintings by Arthur Luciano, which arrived too late to be exhibited in the Art Gallery.

Minerals, Stones, Argiles, and Crystals are shown from various rivers of the State, in the Mining Department.

From the perusal of this brief notice, can be formed an idea of the resources offered by Amazon to whoever may wish to establish himself there.

To Europe, this region is a veritable EL DARADO, where elements, not only for subsistence are to be found, but easy means of acquiring wealth.

To the United States, Amazon is a vast market open to its commerce and its manufactures.

We have all faith in the future of this marvelous region, whose progress, due almost exclusively to its natural resources, only knows a parallel in the great United States of America.



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